From: Terri Bitting
To: Water Draft Permit Comments
Subject: Water Quality Comment per Permit No. 3540-WR-7, AFIN 51-00020
Date: Friday, April 08, 2016 12:48:52 PM
Attachments: Buffalo River letter.pdf
ATT00001.htm

April 8th, 2016

To Whom It May Concern, (and I believe it concerns all of us);

I am writing in response to the invitation of public comment in concern of a maximum amount of 6,000,000 gallons of hog waste to be spread on fields in The Buffalo National River watershed. As a concerned citizen of this state I appreciate the ability to render my comments of this abhorrent practice.

In my modest understanding of the Ozarks we live in a region that is made up of Karst topography, meaning there are many caverns underground, and within these caverns there are underground seeps, and streams. Have you ever seen the emergence of a spring? Have your ever wondered how this water got there? What goes in also comes out. Those springs come from underground sources where water has collected and travels through the vast porous karst system. The Karst in the Ozarks region has the unique ability to receive water from above ground very quickly due to the permeability of it's make up. My concern is that the spreading of this incredible amount of hog waste on the fields within the Buffalo National River watershed will make their way into our riddled Karst topography and will most definitely affect the water quality of Big Creek which feeds directly into the Buffalo River.

I understand that the method used to evaluate the safety of spreading this waste is by use of a Phosphorous test via soil testing. Perhaps this may be of merit in determining the amount of phosphorous that any given field may be able to tolerate and not overload the soil profile, however, it does in no way take into account, the unacceptable levels that may filter in unseen through the vast riddled network of Karst that these fields sit on.

My concern is that the Phosphorous test in inadequate to protect the water bodies that are within the proposed watershed of the fields to be used.There have been dye tests done in the springs and waterbodies in the areas of concern that affect The Buffalo River. These tests show without a doubt ,a very direct correlation of interconnected underground waterways that fall within the region of the fields where this waste will be spread. Dye tracing studies initiated by Dr. Brahana demonstrated the ability of nutrients to travel through karst substrata from C&H hog operation to the Left Fork of Big Creek **in less than one week!** There have also been oxygen level studies done that show there is a current detriment to Big Creek and in addition, elevated E-coli levels have been found as well.

Therefore it is of interest that when I read the Draft Modification of Permit No. 3540-WR-7 I find several items that seem to be in disregard of the water resources that it aims to protect. I have listed these items below as taken directly from the modification request. You will see I have highlighted in red the areas of concern. I have highlighted in **bold** the location of the paragraph within the modification. *My comments, concerns and questions immediately follow each concern and are*

italicized in red and bold as well.

6. Receiving Stream Location

The land application sites are located in Stream Segment 4J of the White River basin and Stream Segment 3H of the Arkansas River basin, which are not in a Nutrient Surplus Area. The surrounding areas were evaluated to determine if any Extraordinary Resource Waters (ERWs), Ecologically Sensitive Waterbodies (ESW's) Natural or Scenic Waterways (NSWs), or waterbodies in the 2008 ADEQ 303(d) list of impaired water bodies in the State of Arkansas are near the land application sites.

The Buffalo River is the closest waterbody listed as an ERW NSW to the land application sites located in Stream Segment 4J of the White River Basin… Land application activities at these sites should not impact the Buffalo River due to best management practices and the separation between the sites and the impacted waterbody. Compliance with the terms of this No-Discharge permit is protective of water quality. Additionally, the sites utilize the Phosphorus Index to minimize nutrients from entering water of the State. Land application will only occur on fields with a P-Index risk value of medium or low. **(Page 2 of the Statement of Basis, Permit No. 3540-WR-7, AFIN 51-0020)**

The statement "should not impact the Bufflalo River" seems to be misleading. Perhaps this statement needs to be read as "will not impact the Buffalo River." Should is a word that is very ambiguous and may be said with good intention, however it does not convey a committed promise to do as stated. It leaves many loopholes that may be used to the disadvantage of the intended area it is meant to protect.

The compliance with the terms of this No-Discharge permit does not seem to reflect the detrimental results that are currently being seen by other methods of water quality standards. The phosphorous tests only show a compliance for phosphorous in the fields, but it does not show the effects of seepage from these fields into the underground system and the concurrent waterways therein. State of the art water testing has shown significant threat via low oxygen levels and e-coli in waterways adjacent to fields that are currently being spread with hog waste.

1. Waste shall not be discharged from this operation to the waters of the State or onto the land in any manner that may result in ponding or runoff to the waters of the State. [Reg. 5.303] **(Page 1 of Part II, Permit No. 3540-WR-7, AFIN 51-00020)**

1. "Waters of the State" means all streams, lakes, marshes, ponds, watercourses, waterways, wells, spring, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within flow through, or border upon this state or any portion of this state as defined by the Act. (**Part IV, Page1 of Part IV, Permit No. 3540-WR-7, AFIN 51-00020)**

My concern is how our karst topography allows for easy entry of pollutants into our underground waterways. It directly states that waters of the state are surface as well as underground. If these waterways are within the waters of the state, and dye tests show the very fast travel of water within our underground system and

subsequent testing shows levels of e-coli, and low oxygen levels are found in emergent springs and waterways, is this not considered a violation? Do you not see the fallacy of using a phosphorous test as a false indicator of the safety of hog waste on fields sitting atop karst? Is this not a direct violation that may or already may have occurred?

1. Duty to Mitigate

The permittee shall take all reasonable steps to prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health, the environment, or the water receiving the discharge. **(Page 3 of Part III, Permit No. 3540-WR-7, AFIN 51-00020)**

If I swim in the Buffalo River am I to assume that I am protected from e-coli and other pollutants that may be in the runoff due to flooding, or emerge from springs that feed the river? Do people who drill wells within this watershed and use these wells for their water, are they protected from having their health adversely affected? Does the testing of the fields with a soil test showing Phosphorous levels really do the job of showing us how the waters of the state are protected? Would the work being done by government agencies, concerned, well educated citizens, using state of the art equipment, who are committed to ensuring the real protection of our resources not be a better picture of the real endangerment to this treasured resource?!

It is often said that if something does not affect us directly, it is easy to look the other way and not be involved. It is called the bystander affect. It is a way to ease our conscious, to not be bothered by emotional calling and pretend that it doesn't matter anyway.

In closing I ask you to directly look at your conscious, look at the real data that has been presented by very qualified citizens, and reflect on this precious resource that matters to so many. Ask yourself if your actions really help or hurt this cause and to take that matter to heart. It is after all what really matters, how you feel inside and whether or not you can live with the decisions you make that affect others and the environment we all live in and share together.

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